```
=> file biosis caba caplus lifesci medline
=> e grode leander/au
E1            1     GRODE JULIUS/AU
E2           28     GRODE L/AU
E3           43 --> GRODE LEANDER/AU
E4           11     GRODE M/AU
E5            1     GRODE M J/AU
E6           12     GRODE M L/AU
E7            1     GRODE MARSHALL L/AU
E8            2     GRODE S E/AU
E9           16     GRODE S H/AU
E10           1     GRODE S S/AU
E11          17     GRODE STEPHEN H/AU
E12           3     GRODE STEPHEN HOWARD/AU
=> s e2-e3 and urease
L1            5 ("GRODE L"/AU OR "GRODE LEANDER"/AU) AND UREASE
=> dup rem l1
PROCESSING COMPLETED FOR L1
L2            3 DUP REM L1 (2 DUPLICATES REMOVED)
=> d bib ab kwic 1-
YOU HAVE REQUESTED DATA FROM 3 ANSWERS - CONTINUE? Y/(N):y

L2   ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2008 ACS on STN
AN   2006:380705  CAPLUS <<LOGINID::20080330>>
DN   144:410795
TI   Recombinant Mycobacterium BCG adjuvant in vaccination
IN   Laeufer, Albrecht; Eisele, Bernd;   ***Grode, Leander***
PA   Vakzine Projekt Management G.m.b.H., Germany
SO   Eur. Pat. Appl., 17 pp.
     CODEN: EPXXDW
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   --------
PI   EP 1649869          A1     20060426    EP 2004-25096          20041021
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR
     AU 2005298976       A1     20060504    AU 2005-298976         20051016
     CA 2584321          A1     20060504    CA 2005-2584321        20051016
     WO 2006045468       A1     20060504    WO 2005-EP11127        20051016
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,
             LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ,
             NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG,
             SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN,
             YU, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
     EP 1802340          A1     20070704    EP 2005-795016         20051016
         R:  AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR
     CN 101048178        A      20071003    CN 2005-80036326       20051016
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PI IN 2007DN02871 A 20070817 IN 2007-DN2871 20070418
MX 200704734 A 20070713 MX 2007-4734 20070419
KR 2007068398 A 20070629 KR 2007-709076 20070420
PRAI EP 2004-25096 A 20041021
WO 2005-EP11127 W 20051016
AB The authors disclose the use of ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as an adjuvant in vaccination. In one example, a tumor vaccine comprises a allogeneic prostate carcinoma cell line, transgenic for interferon-.gamma. and interleukin-2, in combination with the foregoing bacterial cell adjuvant.
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
IN Laeufer, Albrecht; Eisele, Bernd; ***Grode, Leander***
AB The authors disclose the use of ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as an adjuvant in vaccination. In one example, a tumor vaccine comprises a allogeneic prostate carcinoma. . .
IT Vaccines
(antimalarial; ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as adjuvant for)
IT Antigens
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(autoantigens, microbial; ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as adjuvant in vaccination against)
IT Prostate gland, neoplasm
(carcinoma; ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as vaccine adjuvant for cytokine-transgenic cell immunogens)
IT Intestine, neoplasm
(colon, carcinoma; ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as vaccine adjuvant for cytokine-transgenic cell immunogens)
IT Carcinoma
(colon; ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as vaccine adjuvant for cytokine-transgenic cell immunogens)
IT Carcinoma
(head and neck squamous cell carcinoma; ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as vaccine adjuvant for cytokine-transgenic cell immunogens)
IT Cell adhesion molecules
Interleukin 12
Interleukin 2
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(in combination with ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as adjuvant in vaccination)
IT Hemolysins
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(listeriolysins O; ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as adjuvant in vaccination)
IT Antigens
Tumor antigens
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(microbial; ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as adjuvant in vaccination against)
IT Lung, neoplasm

(non-small-cell carcinoma; ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as vaccine adjuvant for cytokine-transgenic cell immunogens)

IT Lysosome
(phagolysosome; ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as adjuvant in vaccination in relation to)

IT Carcinoma
(prostatic; ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as vaccine adjuvant for cytokine-transgenic cell immunogens)

IT Carcinoma
(pulmonary non-small-cell; ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as vaccine adjuvant for cytokine-transgenic cell immunogens)

IT Kidney, neoplasm
(renal cell carcinoma; ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as vaccine adjuvant for cytokine-transgenic cell immunogens)

IT Carcinoma
(renal cell; ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as vaccine adjuvant for cytokine-transgenic cell immunogens)

IT Head and Neck, neoplasm
(squamous cell carcinoma; ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as vaccine adjuvant for cytokine-transgenic cell immunogens)

IT Vaccines
(tumor; ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as adjuvant for)

IT MSP-1 (protein)
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(***urease*** -deficient Mycobacterium BCG expressing listeriolysin as adjuvant for)

IT Plasmodium falciparum
(***urease*** -deficient Mycobacterium BCG expressing listeriolysin as adjuvant for merozoite surface protein of)

IT Malaria
(***urease*** -deficient Mycobacterium BCG expressing listeriolysin as adjuvant for vaccination against)

IT Human
Mycobacterium BCG
Mycobacterium bovis
(***urease*** -deficient Mycobacterium BCG expressing listeriolysin as adjuvant in vaccination)

IT Antigen-presenting cell
Brain, neoplasm
Dendritic cell
Mammary gland, neoplasm
Melanoma
Neoplasm
(***urease*** -deficient Mycobacterium BCG expressing listeriolysin as vaccine adjuvant for cytokine-transgenic cell immunogens)

IT Antimalarials
Antitumor agents
(vaccines; ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as adjuvant for)

IT Interferons
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(.gamma.; in combination with ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as adjuvant in vaccination)
IT 884349-82-0
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(amino acid sequence; ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as adjuvant in vaccination)
IT 9002-13-5D, ***Urease*** , subunit C
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(deficiency; ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as adjuvant in vaccination)
IT 884349-81-9, DNA (Listeria monocytogenes gene hyl)
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nucleotide sequence; ***urease*** -deficient Mycobacterium BCG expressing listeriolysin as adjuvant in vaccination)

L2 ANSWER 2 OF 3 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
DUPLICATE 1
AN 2005:517633 BIOSIS <<LOGINID::20080330>>
DN PREV200510303569
TI Increased vaccine efficacy against tuberculosis of recombinant Mycobacterium bovis bacille Calmette-Guerin mutants that secrete listeriolysin.
AU ***Grode, Leander*** ; Seiler, Peter; Baumann, Sven; Hess, Juergen; Brinkmann, Volker; Eddine, Ali Nasser; Mann, Peggy; Goosmann, Christian; Bandermann, Silke; Smith, Debbie; Bancroft, Gregory J.; Reyrat, Jean-Marc; van Soolingen, Dick; Raupach, Barbell; Kaufmann, Stefan H. E. [Reprint Author]
CS Max Planck Inst Infect Biol, Dept Immunol, Schumannstr 21-22, D-10117 Berlin, Germany
Kaufmann@mpiib-Berlin.mpg.de
SO Journal of Clinical Investigation, (SEP 2005) Vol. 115, No. 9, pp. 2472-2479.
CODEN: JCINAO. ISSN: 0021-9738.
DT Article
LA English
ED Entered STN: 23 Nov 2005
Last Updated on STN: 23 Nov 2005
AB The tuberculosis vaccine Mycobacterium bovis bacille Calmette-Guerin (BCG) was equipped with the membrane-perforating listeriolysin (Hly) of Listeria monocytogenes, which was shown to improve protection against Mycobacterium tuberculosis. Following aerosol challenge, the Hly-secreting recombinant BCG (hly(+) rBCG) vaccine was shown to protect significantly better against aerosol infection with M. tuberculosis than did the parental BCG strain. The isogenic, ***urease*** C-deficient hly(+) rBCG (Delta ureC hly(+) rBCG) vaccine, providing an intraphagosomal pH closer to the acidic pH optimum for Hly activity, exhibited still higher vaccine efficacy than parental BCG. Delta ureC hly(+) rBCG also induced profound protection against a member of the M. tuberculosis Beijing/W genotype family while parental BCG failed to do so consistently. Hly not only promoted antigen translocation into the cytoplasm but also apoptosis of infected macrophages. We concluded that superior vaccine efficacy of

Delta ureC hly(+) rBCG as compared with parental BCG is primarily based on improved cross-priming, which causes enhanced T cell-mediated immunity.

AU ***Grode, Leander*** ; Seiler, Peter; Baumann, Sven; Hess, Juergen; Brinkmann, Volker; Eddine, Ali Nasser; Mann, Peggy; Goosmann, Christian; Bandermann, Silke; Smith, Debbie;. . .

AB. . . was shown to protect significantly better against aerosol infection with M. tuberculosis than did the parental BCG strain. The isogenic, ***urease*** C-deficient hly(+) rBCG (Delta ureC hly(+) rBCG) vaccine, providing an intraphagosomal pH closer to the acidic pH optimum for Hly. . .

IT . . .
of Organisms
macrophage: immune system, blood and lymphatics

IT Diseases
tuberculosis: bacterial disease, drug therapy
Tuberculosis (MeSH)

IT Chemicals & Biochemicals
urease [EC 3.5.1.5]; listeriolysin; bacille Calmette-Guerin: immunologic-drug, vaccine

RN 9002-13-5 (***urease***)
9002-13-5 (EC 3.5.1.5)

L2 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:927244 CAPLUS <<LOGINID::20080330>>
DN 141:394066
TI Vaccines comprising antigen domain and phagolysosomal escape domain for treating tuberculosis, cancer and infection
IN ***Grode, Leander*** ; Kaufmann, Stefan H. E.; Raupach, Baerbel; Hess, Juergen
PA Max-Planck-Gesellschaft zur Foerderung der Wissenschaften e.V., Germany
SO PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004094469	A1	20041104	WO 2004-EP4345	20040423
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2004232485	A1	20041104	AU 2004-232485	20040423
	CA 2523084	A1	20041104	CA 2004-2523084	20040423
	EP 1618128	A1	20060125	EP 2004-729090	20040423
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	BR 2004009789	A	20060530	BR 2004-9789	20040423
	CN 1798762	A	20060705	CN 2004-80010664	20040423
	JP 2007524367	T	20070830	JP 2006-505250	20040423

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     ZA 2005008276        A     20060628    ZA 2005-8276          20051013
     IN 2005KN02337       A     20070727    IN 2005-KN2337        20051122
     US 2007134267        A1    20070614    US 2006-554408        20061130
PRAI US 2003-464644P      P     20030423
     WO 2004-EP4345       W     20040423
AB   The present invention relates to novel recombinant vaccines comprising
     fusion protein contg. an antigenic domain and a phagolysosomal escape
     domain. providing protective immunity against tuberculosis.  The antigenic
     domain is from Mycobacterium tuberculosis antigen Ag85B, Ag85A or ESAT-6;
     or Mycobacterium bovis antigen Ag85B.  The antigenic domain can also be
     derived from autoantigen, tumor antigen, viral antigen, parasitic antigen,
     bacterial antigen or their immunogenic fragment.  The phagolysosomal
     escape domain is a Listeria phagolysosomal escape domain.  Further, the
     present invention refers to novel recombinant nucleic acid mols., vectors
     contg. said nucleic acid mols., cells transformed with said nucleic acid
     mols. and polypeptides encoded by said nucleic acid mols.  These
     recombinant vaccines are used together with diluents, carriers and
     adjuvants; and are prepd. for mucosal or parenteral administration.
RE.CNT  4     THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
IN     ***Grode, Leander***  ; Kaufmann, Stefan H. E.; Raupach, Baerbel; Hess,
     Juergen
IT   9002-13-5,   ***Urease***
     RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL
     (Biological study); PROC (Process)
        (inactivation or -deficient; vaccines comprising antigen domain and
        phagolysosomal escape domain for treating tuberculosis, cancer and
        infection)


=> e kaufmann stefan h/au
E1           1     KAUFMANN STEFAN F M/AU
E2           1     KAUFMANN STEFAN G/AU
E3           4 --> KAUFMANN STEFAN H/AU
E4         965     KAUFMANN STEFAN H E/AU
E5           1     KAUFMANN STEFAN H K/AU
E6           4     KAUFMANN STEFAN HE/AU
E7           2     KAUFMANN STEFAN HUGO ERNST/AU
E8           1     KAUFMANN STEFAN J E/AU
E9           3     KAUFMANN STEFANIE/AU
E10          1     KAUFMANN STEFFEN/AU
E11          1     KAUFMANN STEMP D/AU
E12          8     KAUFMANN STEPHAN/AU

=> s e3-e7 and (urease deficient)
L3           0 ("KAUFMANN STEFAN H"/AU OR "KAUFMANN STEFAN H E"/AU OR "KAUFMANN
               STEFAN H K"/AU OR "KAUFMANN STEFAN HE"/AU OR "KAUFMANN STEFAN
              HUGO ERNST"/AU) AND (UREASE DEFICIENT)

=> s e3-e7 and (urease)
L4           4 ("KAUFMANN STEFAN H"/AU OR "KAUFMANN STEFAN H E"/AU OR "KAUFMANN
               STEFAN H K"/AU OR "KAUFMANN STEFAN HE"/AU OR "KAUFMANN STEFAN
              HUGO ERNST"/AU) AND (UREASE)

=> dup rem l4
PROCESSING COMPLETED FOR L4
L5           2 DUP REM L4 (2 DUPLICATES REMOVED)
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=> d bib ab kwic 1-
YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/(N):y

L5   ANSWER 1 OF 2  BIOSIS  COPYRIGHT (c) 2008 The Thomson Corporation  on STN
     DUPLICATE 1
AN   2005:517633  BIOSIS <<LOGINID::20080330>>
DN   PREV200510303569
TI   Increased vaccine efficacy against tuberculosis of recombinant
     Mycobacterium bovis bacille Calmette-Guerin mutants that secrete
     listeriolysin.
AU   Grode, Leander; Seiler, Peter; Baumann, Sven; Hess, Juergen; Brinkmann,
     Volker; Eddine, Ali Nasser; Mann, Peggy; Goosmann, Christian; Bandermann,
     Silke; Smith, Debbie; Bancroft, Gregory J.; Reyrat, Jean-Marc; van
     Soolingen, Dick; Raupach, Barbell;   ***Kaufmann, Stefan H. E.***
     [Reprint Author]
CS   Max Planck Inst Infect Biol, Dept Immunol, Schumannstr 21-22, D-10117
     Berlin, Germany
     Kaufmann@mpiib-Berlin.mpg.de
SO   Journal of Clinical Investigation, (SEP 2005) Vol. 115, No. 9, pp.
     2472-2479.
     CODEN: JCINAO. ISSN: 0021-9738.
DT   Article
LA   English
ED   Entered STN: 23 Nov 2005
     Last Updated on STN: 23 Nov 2005
AB   The tuberculosis vaccine Mycobacterium bovis bacille Calmette-Guerin (BCG)
     was equipped with the membrane-perforating listeriolysin (Hly) of Listeria
     monocytogenes, which was shown to improve protection against Mycobacterium
     tuberculosis.  Following aerosol challenge, the Hly-secreting recombinant
     BCG (hly(+) rBCG) vaccine was shown to protect significantly better
     against aerosol infection with M. tuberculosis than did the parental BCG
     strain.  The isogenic,   ***urease***   C-deficient hly(+) rBCG (Delta
     ureC hly(+) rBCG) vaccine, providing an intraphagosomal pH closer to the
     acidic pH optimum for Hly activity, exhibited still higher vaccine
     efficacy than parental BCG.  Delta ureC hly(+) rBCG also induced profound
     protection against a member of the M. tuberculosis Beijing/W genotype
     family while parental BCG failed to do so consistently.  Hly not only
     promoted antigen translocation into the cytoplasm but also apoptosis of
     infected macrophages.  We concluded that superior vaccine efficacy of
     Delta ureC hly(+) rBCG as compared with parental BCG is primarily based on
     improved cross-priming, which causes enhanced T cell-mediated immunity.
AU.  .  .  Ali Nasser; Mann, Peggy; Goosmann, Christian; Bandermann, Silke;
     Smith, Debbie; Bancroft, Gregory J.; Reyrat, Jean-Marc; van Soolingen,
     Dick; Raupach, Barbell;   ***Kaufmann, Stefan H. E.***   [Reprint Author]
AB.  .  .  was shown to protect significantly better against aerosol infection
     with M. tuberculosis than did the parental BCG strain.  The isogenic,
       ***urease***   C-deficient hly(+) rBCG (Delta ureC hly(+) rBCG) vaccine,
     providing an intraphagosomal pH closer to the acidic pH optimum for Hly.
     .  .
IT   .  .  .
of Organisms
        macrophage: immune system, blood and lymphatics
IT   Diseases
        tuberculosis: bacterial disease, drug therapy
        Tuberculosis (MeSH)
IT   Chemicals & Biochemicals
```

urease [EC 3.5.1.5]; listeriolysis; bacille Calmette-Guerin: immunologic-drug, vaccine

RN 9002-13-5 (***urease***)
9002-13-5 (EC 3.5.1.5)

L5 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:927244 CAPLUS <<LOGINID::20080330>>
DN 141:394066
TI Vaccines comprising antigen domain and phagolysosomal escape domain for treating tuberculosis, cancer and infection
IN Grode, Leander; ***Kaufmann, Stefan H. E.*** ; Raupach, Baerbel; Hess, Juergen
PA Max-Planck-Gesellschaft zur Foerderung der Wissenschaften e.V., Germany
SO PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004094469	A1	20041104	WO 2004-EP4345	20040423
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2004232485	A1	20041104	AU 2004-232485	20040423
	CA 2523084	A1	20041104	CA 2004-2523084	20040423
	EP 1618128	A1	20060125	EP 2004-729090	20040423
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	BR 2004009789	A	20060530	BR 2004-9789	20040423
	CN 1798762	A	20060705	CN 2004-80010664	20040423
	JP 2007524367	T	20070830	JP 2006-505250	20040423
	ZA 2005008276	A	20060628	ZA 2005-8276	20051013
	IN 2005KN02337	A	20070727	IN 2005-KN2337	20051122
	US 2007134267	A1	20070614	US 2006-554408	20061130
PRAI	US 2003-464644P	P	20030423		
	WO 2004-EP4345	W	20040423		

AB The present invention relates to novel recombinant vaccines comprising fusion protein contg. an antigenic domain and a phagolysosomal escape domain. providing protective immunity against tuberculosis. The antigenic domain is from Mycobacterium tuberculosis antigen Ag85B, Ag85A or ESAT-6; or Mycobacterium bovis antigen Ag85B. The antigenic domain can also be derived from autoantigen, tumor antigen, viral antigen, parasitic antigen, bacterial antigen or their immunogenic fragment. The phagolysosomal escape domain is a Listeria phagolysosomal escape domain. Further, the present invention refers to novel recombinant nucleic acid mols., vectors contg. said nucleic acid mols., cells transformed with said nucleic acid mols. and polypeptides encoded by said nucleic acid mols. These recombinant vaccines are used together with diluents, carriers and

```
     adjuvants; and are prepd. for mucosal or parenteral administration.
RE.CNT  4     THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
IN   Grode, Leander;   ***Kaufmann, Stefan H. E.***  ; Raupach, Baerbel; Hess,
     Juergen
IT   9002-13-5,   ***Urease***
     RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL
     (Biological study); PROC (Process)
        (inactivation or -deficient; vaccines comprising antigen domain and
        phagolysosomal escape domain for treating tuberculosis, cancer and
        infection)


=> e raupach barbel/au
E1          57     RAUPACH B/AU
E2          36     RAUPACH BAERBEL/AU
E3          22 --> RAUPACH BARBEL/AU
E4           1     RAUPACH BARBELL/AU
E5           7     RAUPACH C/AU
E6           7     RAUPACH CARINA/AU
E7           8     RAUPACH D C/AU
E8           5     RAUPACH DALE C/AU
E9           1     RAUPACH DALE R/AU
E10          9     RAUPACH E/AU
E11        125     RAUPACH F/AU
E12          2     RAUPACH F V/AU

=> s e1-e4 and urease
L6           4 ("RAUPACH B"/AU OR "RAUPACH BAERBEL"/AU OR "RAUPACH BARBEL"/AU
               OR "RAUPACH BARBELL"/AU) AND UREASE

=> dup rem l6
PROCESSING COMPLETED FOR L6
L7             2 DUP REM L6 (2 DUPLICATES REMOVED)

=> d bib ab kwic 1-
YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/(N):y

L7   ANSWER 1 OF 2  BIOSIS  COPYRIGHT (c) 2008 The Thomson Corporation  on STN
     DUPLICATE 1
AN   2005:517633  BIOSIS <<LOGINID::20080330>>
DN   PREV200510303569
TI   Increased vaccine efficacy against tuberculosis of recombinant
     Mycobacterium bovis bacille Calmette-Guerin mutants that secrete
     listeriolysin.
AU   Grode, Leander; Seiler, Peter; Baumann, Sven; Hess, Juergen; Brinkmann,
     Volker; Eddine, Ali Nasser; Mann, Peggy; Goosmann, Christian; Bandermann,
     Silke; Smith, Debbie; Bancroft, Gregory J.; Reyrat, Jean-Marc; van
     Soolingen, Dick;   ***Raupach, Barbell***  ; Kaufmann, Stefan H. E.
     [Reprint Author]
CS   Max Planck Inst Infect Biol, Dept Immunol, Schumannstr 21-22, D-10117
     Berlin, Germany
     Kaufmann@mpiib-Berlin.mpg.de
SO   Journal of Clinical Investigation, (SEP 2005) Vol. 115, No. 9, pp.
     2472-2479.
     CODEN: JCINAO. ISSN: 0021-9738.
DT   Article
```

LA English
ED Entered STN: 23 Nov 2005
Last Updated on STN: 23 Nov 2005
AB The tuberculosis vaccine Mycobacterium bovis bacille Calmette-Guerin (BCG) was equipped with the membrane-perforating listeriolysin (Hly) of Listeria monocytogenes, which was shown to improve protection against Mycobacterium tuberculosis. Following aerosol challenge, the Hly-secreting recombinant BCG (hly(+) rBCG) vaccine was shown to protect significantly better against aerosol infection with M. tuberculosis than did the parental BCG strain. The isogenic, ***urease*** C-deficient hly(+) rBCG (Delta ureC hly(+) rBCG) vaccine, providing an intraphagosomal pH closer to the acidic pH optimum for Hly activity, exhibited still higher vaccine efficacy than parental BCG. Delta ureC hly(+) rBCG also induced profound protection against a member of the M. tuberculosis Beijing/W genotype family while parental BCG failed to do so consistently. Hly not only promoted antigen translocation into the cytoplasm but also apoptosis of infected macrophages. We concluded that superior vaccine efficacy of Delta ureC hly(+) rBCG as compared with parental BCG is primarily based on improved cross-priming, which causes enhanced T cell-mediated immunity.
AU. . . Volker; Eddine, Ali Nasser; Mann, Peggy; Goosmann, Christian; Bandermann, Silke; Smith, Debbie; Bancroft, Gregory J.; Reyrat, Jean-Marc; van Soolingen, Dick; ***Raupach, Barbell*** ; Kaufmann, Stefan H. E. [Reprint Author]
AB . . was shown to protect significantly better against aerosol infection with M. tuberculosis than did the parental BCG strain. The isogenic, ***urease*** C-deficient hly(+) rBCG (Delta ureC hly(+) rBCG) vaccine, providing an intraphagosomal pH closer to the acidic pH optimum for Hly.
. .
IT . . .
of Organisms
macrophage: immune system, blood and lymphatics
IT Diseases
tuberculosis: bacterial disease, drug therapy
Tuberculosis (MeSH)
IT Chemicals & Biochemicals
urease [EC 3.5.1.5]; listeriolysin; bacille Calmette-Guerin: immunologic-drug, vaccine
RN 9002-13-5 (***urease***)
9002-13-5 (EC 3.5.1.5)

L7 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:927244 CAPLUS <<LOGINID::20080330>>
DN 141:394066
TI Vaccines comprising antigen domain and phagolysosomal escape domain for treating tuberculosis, cancer and infection
IN Grode, Leander; Kaufmann, Stefan H. E.; ***Raupach, Baerbel*** ; Hess, Juergen
PA Max-Planck-Gesellschaft zur Foerderung der Wissenschaften e.V., Germany
SO PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004094469	A1	20041104	WO 2004-EP4345	20040423
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,				

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
TD, TG

AU	2004232485	A1	20041104	AU 2004-232485	20040423
CA	2523084	A1	20041104	CA 2004-2523084	20040423
EP	1618128	A1	20060125	EP 2004-729090	20040423

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR

BR	2004009789	A	20060530	BR 2004-9789	20040423
CN	1798762	A	20060705	CN 2004-80010664	20040423
JP	2007524367	T	20070830	JP 2006-505250	20040423
ZA	2005008276	A	20060628	ZA 2005-8276	20051013
IN	2005KN02337	A	20070727	IN 2005-KN2337	20051122
US	2007134267	A1	20070614	US 2006-554408	20061130
PRAI US	2003-464644P	P	20030423		
	WO 2004-EP4345	W	20040423		

AB The present invention relates to novel recombinant vaccines comprising fusion protein contg. an antigenic domain and a phagolysosomal escape domain. providing protective immunity against tuberculosis. The antigenic domain is from Mycobacterium tuberculosis antigen Ag85B, Ag85A or ESAT-6; or Mycobacterium bovis antigen Ag85B. The antigenic domain can also be derived from autoantigen, tumor antigen, viral antigen, parasitic antigen, bacterial antigen or their immunogenic fragment. The phagolysosomal escape domain is a Listeria phagolysosomal escape domain. Further, the present invention refers to novel recombinant nucleic acid mols., vectors contg. said nucleic acid mols., cells transformed with said nucleic acid mols. and polypeptides encoded by said nucleic acid mols. These recombinant vaccines are used together with diluents, carriers and adjuvants; and are prepd. for mucosal or parenteral administration.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

IN Grode, Leander; Kaufmann, Stefan H. E.; ***Raupach, Baerbel*** ; Hess, Juergen

IT 9002-13-5, ***Urease***
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)
(inactivation or -deficient; vaccines comprising antigen domain and phagolysosomal escape domain for treating tuberculosis, cancer and infection)

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=> e hess jurgen/au
E1            1     HESS JUNIOR ARTUR/AU
E2            3     HESS JURG/AU
E3           38 --> HESS JURGEN/AU
E4            2     HESS JURGEN C/AU
E5            2     HESS JURGEN H/AU
E6            6     HESS JUSTIN M/AU
E7          605     HESS K/AU
E8           23     HESS K A/AU
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E9            1     HESS K BELLEVILLE F/AU
E10           2     HESS K C/AU
E11           8     HESS K D/AU
E12           2     HESS K G/AU

=> s e2-e5 and urease
L8            1 ("HESS JURG"/AU OR "HESS JURGEN"/AU OR "HESS JURGEN C"/AU OR
                "HESS JURGEN H"/AU) AND UREASE

=> d

L8   ANSWER 1 OF 1     MEDLINE on STN
AN   2005580918     MEDLINE <<LOGINID::20080330>>
DN   PubMed ID: 16110326
TI   Increased vaccine efficacy against tuberculosis of recombinant
     Mycobacterium bovis bacille Calmette-Guerin mutants that secrete
     listeriolysin.
AU   Grode Leander; Seiler Peter; Baumann Sven;   ***Hess Jurgen***  ;
     Brinkmann Volker; Nasser Eddine Ali; Mann Peggy; Goosmann Christian;
     Bandermann Silke; Smith Debbie; Bancroft Gregory J; Reyrat Jean-Marc; van
     Soolingen Dick; Raupach Barbel; Kaufmann Stefan H E
CS   Max Planck Institute for Infection Biology, Berlin, Germany.
SO   The Journal of clinical investigation, (2005 Sep) Vol. 115, No. 9, pp.
     2472-9.  Electronic Publication: 2005-08-18.
     Journal code: 7802877. ISSN: 0021-9738.
CY   United States
DT   Journal; Article; (JOURNAL ARTICLE)
     (RESEARCH SUPPORT, NON-U.S. GOV'T)
LA   English
FS   Abridged Index Medicus Journals; Priority Journals
EM   200512
ED   Entered STN: 3 Nov 2005
     Last Updated on STN: 18 Dec 2005
     Entered Medline: 14 Dec 2005


=> s (urease deficient)
L9          75 (UREASE DEFICIENT)

=> dup rem l9
PROCESSING COMPLETED FOR L9
L10          31 DUP REM L9 (44 DUPLICATES REMOVED)

=> s l10 and (bact? or mycobact? or tuberculosis or bovis)
L11         20 L10 AND (BACT? OR MYCOBACT? OR TUBERCULOSIS OR BOVIS)

=> d bib ab kwic 1-
YOU HAVE REQUESTED DATA FROM 20 ANSWERS - CONTINUE? Y/(N):y

L11  ANSWER 1 OF 20  BIOSIS  COPYRIGHT (c) 2008 The Thomson Corporation  on STN
AN   2007:355406  BIOSIS <<LOGINID::20080330>>
DN   PREV200700359871
TI   Characterization of the urease operon of Brucella abortus and assessment
     of its role in virulence of the   ***bacterium***  .
AU   Sangari, Felix J.; Seoane, Asuncion; Rodriguez, Maria Cruz; Aguero, Jesus;
     Garcia Lobo, Juan M. [Reprint Author]
CS   Univ Cantabria, Dept Biol Mol, Fac Med, C Cardenal Herrera Oria S-N,
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Santander 39011, Spain
jmglobo@unican.es
SO Infection and Immunity, (FEB 2007) Vol. 75, No. 2, pp. 774-780.
CODEN: INFIBR. ISSN: 0019-9567.
DT Article
LA English
ED Entered STN: 20 Jun 2007
Last Updated on STN: 20 Jun 2007
AB Most members of the genus Brucella show strong urease activity. However, the role of this enzyme in the pathogenesis of Brucella infections is poorly understood. We isolated several Tn5 insertion mutants deficient in urease activity from Brucella abortus strain 2308. The mutations of most of these mutants mapped to a 5.7-kbp DNA region essential for urease activity. Sequencing of this region, designated ure1, revealed the presence of seven open reading frames corresponding to the urease structural proteins (UreA, UreB, and UreC) and the accessory proteins (UreD, UreE, UreF, and UreG). In addition to the urease genes, another gene (cobT) was identified, and inactivation of this gene affected urease activity in Brucella. Subsequent analysis of the previously described sequences of the genomes of Brucella spp. revealed the presence of a second urease cluster, ure2, in all them. The ure2 locus was apparently inactive in B. abortus 2308. ***Urease*** - ***deficient*** mutants were used to evaluate the role of urease in Brucella pathogenesis. The urease-producing strains were found to be resistant in vitro to strong acid conditions in the presence of urea, while urease-negative mutants were susceptible to acid treatment. Similarly, the urease-negative mutants were killed more efficiently than the urease-producing strains during transit through the stomach. These results suggested that urease protects brucellae during their passage through the stomach when the ***bacteria*** are acquired by the oral route, which is the major route of infection in human brucellosis.
TI Characterization of the urease operon of Brucella abortus and assessment of its role in virulence of the ***bacterium*** .
AB. . . presence of a second urease cluster, ure2, in all them. The ure2 locus was apparently inactive in B. abortus 2308. ***Urease*** - ***deficient*** mutants were used to evaluate the role of urease in Brucella pathogenesis. The urease-producing strains were found to be resistant. . . during transit through the stomach. These results suggested that urease protects brucellae during their passage through the stomach when the ***bacteria*** are acquired by the oral route, which is the major route of infection in human brucellosis.
IT . . .
and Assimilation); Enzymology (Biochemistry and Molecular Biophysics)
IT Parts, Structures, & Systems of Organisms
stomach: digestive system
IT Diseases
brucellosis: ***bacterial*** disease, infectious disease
Brucellosis (MeSH)
IT Diseases
Brucella abortus infection: ***bacterial*** disease, infectious disease
IT Chemicals & Biochemicals
DNA; urease [EC 3.5.1.5]; UreA; UreB; UreG; UreD; UreE; UreF; UreC
ORGN Classifier
Gram-Negative Aerobic Rods and Cocci 06500
Super Taxa
Eubacteria; ***Bacteria*** ; Microorganisms

Organism Name
Brucella abortus (species): strain-2308
Taxa Notes
Bacteria , Eubacteria, Microorganisms
ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human (common)
Taxa Notes
Animals,. . .

L11 ANSWER 2 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
AN 2006:296770 BIOSIS <<LOGINID::20080330>>
DN PREV200600297562
TI The role of Klebsiella pneumoniae urease in intestinal colonization and resistance to gastrointestinal stress.
AU Maroncle, Nathalie; Rich, Chantal; Forestier, Christiane [Reprint Author]
CS Univ Auvergne, Fac Pharm, Bacteriol Lab, 28 Pl H Dunant, F-63000 Clermont Ferrand, France
Christiane.forestier@u-clermontI.fr
SO Research in Microbiology, (MAR 2006) Vol. 157, No. 2, pp. 184-193.
CODEN: RMCREW. ISSN: 0923-2508.
DT Article
LA English
ED Entered STN: 31 May 2006
Last Updated on STN: 31 May 2006
AB The first step in nosocomial infections due to Klebsiella pneumoniae is colonization of the patient's gastrointestinal (GI) tract. In a previous work, signature-tagged mutagenesis was used in a murine model to identify 13 genes required for efficient colonization, two of which were involved in urea metabolism. The role of urease was further investigated by the construction and analysis of an isogenic ***urease*** - ***deficient*** mutant. The behavior of both the wild-type strain and the ***urease*** - ***deficient*** mutant was tested under hostile conditions, reproducing stresses encountered in the GI environment. The wild-type strain had an acid tolerance response (ATR) to inorganic acid, was resistant to organic acids (38.5% survival) and was able to survive concentrations of bile encountered in vivo. The absence of urease did not affect the resistance of K. pneumoniae to acid and bile stresses, but the enhanced adhesion response to Int-407 cells after exposure to bile observed with the wild-type strain was no longer detected with the urease mutant. When tested in the murine intestinal colonization model, both strains were mainly recovered in the large intestine parts, and the mutant was impaired in its colonization capacities, but only when tested in competition with the wild-type strain. These findings emphasize the prominent role played by metabolic function in the colonization process of such a complex ecosystem as the host GI tract. (c) 2005 Elsevier SAS. All rights reserved.
AB. . . were involved in urea metabolism. The role of urease was further investigated by the construction and analysis of an isogenic ***urease*** - ***deficient*** mutant. The behavior of both the wild-type strain and the ***urease*** - ***deficient*** mutant was tested under hostile conditions, reproducing stresses encountered in the GI environment. The wild-type strain had an acid tolerance. . .
ORGN Classifier

Enterobacteriaceae 06702
Super Taxa
Facultatively Anaerobic Gram-Negative Rods; Eubacteria;
Bacteria ; Microorganisms
Organism Name
Klebsiella pneumoniae (species): pathogen
Taxa Notes
Bacteria , Eubacteria, Microorganisms
ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human (common): host
Taxa Notes

L11 ANSWER 3 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
AN 2006:26018 BIOSIS <<LOGINID::20080330>>
DN PREV200600025071
TI Production of ammonium by Helicobacter pylori mediates occludin processing and disruption of tight junctions in Caco-2 cells.
AU Lytton, Simon D. [Reprint Author]; Fischer, Wolfgang; Nagel, Wolfram; Haas, Rainer; Beck, Franz X.
CS SeraDiaLogist, Hertlingstr 1, D-81545 Munich, Germany
Simon.lytton@t-online.de
SO Microbiology (Reading), (OCT 2005) Vol. 151, No. Part 10, pp. 3267-3276. ISSN: 1350-0872.
DT Article
LA English
ED Entered STN: 21 Dec 2005
Last Updated on STN: 21 Dec 2005
AB Tight junctions, paracellular permeability barriers that define epithelial cell polarity, play an essential role in transepithelial transport, cell-cell adhesion and lymphocyte transmigration. They are also important for the maintenance of innate immune defence and intestinal antigen uptake. Ammonium (NH4+) is elevated in the gastric aspirates of Helicobacter pylori-infected patients and has been implicated in the disruption of tight-junction functional integrity and the induction of gastric mucosal damage during H. pylori infection. The precise mechanism of the effect of ammonium and the molecular targets of ammonium in host tissue are not yet identified. To study the effects of ammonium on epithelial tight junctions, the human colon carcinoma cell line Caco-2 was cultured on permeable supports and the transepithelial resistance (TER) was measured at different time intervals following exposure to ammonium salts or H. pylori-derived ammonium. A biphasic response to treatment with ammonium was found. Acute exposure to ammonium salts or NH3/NH4+ derived from urea metabolism by wild-type H. pylori resulted in a 20-30% decrease in TER. After 24 h, the NH4Cl-treated cells showed a partial recovery of TER. In contrast, the control culture, or cultures that were exposed to supernatants derived from ***urease*** - ***deficient*** H. pylori, showed no significant decrease in TER. Occludin-specific immunoblots revealed the expression of a low-molecular-weight form of occludin of 42 kDa upon NH3/NH4+ exposure. The results indicate that modulation of tight-junction function by H. pylori is ammonium-dependent and linked to the accumulation of a low-molecular-weight and detergent-soluble form of occludin.
AB. . . showed a partial recovery of TER. In contrast, the control culture,

or cultures that were exposed to supernatants derived from ***urease*** - ***deficient*** H. pylori, showed no significant decrease in TER. Occludin-specific immunoblots revealed the expression of a low-molecular-weight form of occludin of. . .

ORGN Classifier
Aerobic Helical or Vibrioid Gram-Negatives 06210
Super Taxa
Eubacteria; ***Bacteria*** ; Microorganisms
Organism Name
Helicobacter pylori (species): pathogen
Taxa Notes
Bacteria , Eubacteria, Microorganisms

ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human (common)
Caco-2 cell line (cell_line). . .

L11 ANSWER 4 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
AN 2004:316567 BIOSIS <<LOGINID::20080330>>
DN PREV200400316839
TI Selection and properties of Streptococcus thermophilus mutants deficient in urease.
AU Monnet, C. [Reprint Author]; Pernoud, S.; Sepulchre, A.; Fremaux, C.; Corrieu, G.
CS Unite Mixte Rech Genie and Microbiol Proc Alimentai, INRA, F-78850, Thiverval Grignon, France
monnet@grignon.inra.fr
SO Journal of Dairy Science, (June 2004) Vol. 87, No. 6, pp. 1634-1640. print.
CODEN: JDSCAE. ISSN: 0022-0302.
DT Article
LA English
ED Entered STN: 15 Jul 2004
Last Updated on STN: 15 Jul 2004
AB Natural variations of the urea content of milk have a detrimental effect on the regularity of acidification by Streptococcus thermophilus strains used in dairy processes. The aim of the present study was to select ***urease*** - ***deficient*** mutants of S. thermophilus and to investigate their properties. Using an improved screening medium on agar plates, mutants were selected from 4 different parent strains after mutagen treatment and by spontaneous mutation. Most mutants were stable and had a phage sensitivity profile similar to that of their parent strain. Some of them contained detrimental secondary mutations, as their acidifying activity was lower than that of the parent strain cultivated in the presence of the urease inhibitor flurofamide. The proportion of this type of mutant was much lower among spontaneous mutants than among mutants selected after mutagen treatment. Utilization of ***urease*** - ***deficient*** mutants in dairy processes may have several advantages, such as an increase in acidification, an improved regularity of acidification, and a lower production of ammonia in whey.
AB. . . regularity of acidification by Streptococcus thermophilus strains used in dairy processes. The aim of the present study was to select ***urease*** - ***deficient*** mutants of S. thermophilus and to investigate their properties. Using an improved screening medium on agar

plates, mutants were selected. . . of this type of mutant was much lower among spontaneous mutants than among mutants selected after mutagen treatment. Utilization of ***urease*** - ***deficient*** mutants in dairy processes may have several advantages, such as an increase in acidification, an improved regularity of acidification, and. . .

ORGN Classifier
Gram-Positive Cocci 07700
Super Taxa
Eubacteria; ***Bacteria*** ; Microorganisms
Organism Name
Streptococcus thermophilus (species): ***urease*** - ***deficient*** mutants
Taxa Notes
Bacteria , Eubacteria, Microorganisms

L11 ANSWER 5 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
AN 2004:104625 BIOSIS <<LOGINID::20080330>>
DN PREV200400096230
TI Motility of ***urease*** - ***deficient*** derivatives of Helicobacter pylori.
AU Tan, Shumin; Berg, Douglas E. [Reprint Author]
CS Department of Molecular Microbiology, Washington University School of Medicine, Campus Box 8230, St. Louis, MO, 63110, USA
berg@borcim.wustl.edu
SO Journal of Bacteriology, (February 2004) Vol. 186, No. 3, pp. 885-888. print.
CODEN: JOBAAY. ISSN: 0021-9193.
DT Article
LA English
ED Entered STN: 18 Feb 2004
Last Updated on STN: 18 Feb 2004
AB Early studies of a ureB mutant derivative of Helicobacter pylori had suggested that urease is needed for motility and that urease action helps energize flagellar rotation. Here we report experiments showing that motility is unaffected by deletion of ureA and ureB (urease genes) or by inactivation of ureB alone, especially if H. pylori strains used as recipients for transformation with mutant alleles are preselected for motility. This result was obtained with the strain used in the early studies (CPY3401) and also with 15 other strains, 3 of which can colonize mice. We conclude that urease is not needed for H. pylori motility.
TI Motility of ***urease*** - ***deficient*** derivatives of Helicobacter pylori.
ORGN Classifier
Aerobic Helical or Vibrioid Gram-Negatives 06210
Super Taxa
Eubacteria; ***Bacteria*** ; Microorganisms
Organism Name
Helicobacter pylori (species): pathogen, motility, strain-88-3887, strain-A28-1, strain-A66-1, strain-CYP3401, strain-Chen13, strain-F28, strain-GS5, strain-HK192, strain-PCM4, strain-PeCan28, strain-R64, strain-R66, strain-R76, strain-R82, strain-SS1, strain-X47, ***urease*** - ***deficient*** derivatives
Taxa Notes
Bacteria , Eubacteria, Microorganisms
ORGN Classifier
Muridae 86375
Super Taxa

Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
mouse (common)
Taxa Notes
Animals,. . .

L11 ANSWER 6 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
AN 2000:418052 BIOSIS <<LOGINID::20080330>>
DN PREV200000418052
TI Dual functions of Streptococcus salivarius urease.
AU Chen, Yi-Ywan M.; Weaver, Cheryl A.; Burne, Robert A. [Reprint author]
CS Center for Oral Biology, University of Rochester Medical Center, 601 Elmwood Ave., Rochester, NY, 14642, USA
SO Journal of Bacteriology, (August, 2000) Vol. 182, No. 16, pp. 4667-4669. print.
CODEN: JOBAAY. ISSN: 0021-9193.
DT Article
LA English
ED Entered STN: 4 Oct 2000
Last Updated on STN: 8 Jan 2002
AB A ***urease*** - ***deficient*** derivative of Streptococcus salivarius 57.I was constructed by allelic exchange at the ureC locus. The wild-type strain was protected against acid killing through hydrolysis of physiologically relevant concentrations of urea, whereas the mutant was not. Also, S. salivarius could use urea as a source of nitrogen for growth exclusively through a urease-dependent pathway.
AB A ***urease*** - ***deficient*** derivative of Streptococcus salivarius 57.I was constructed by allelic exchange at the ureC locus. The wild-type strain was protected against. . .
ORGN Classifier
Gram-Positive Cocci 07700
Super Taxa
Eubacteria; ***Bacteria*** ; Microorganisms
Organism Name
Streptococcus salivarius: strain-57.I
Taxa Notes
Bacteria , Eubacteria, Microorganisms

L11 ANSWER 7 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
AN 2000:400579 BIOSIS <<LOGINID::20080330>>
DN PREV200000400579
TI Helicobacter pylori urease suppresses ***bactericidal*** activity of peroxynitrite via carbon dioxide production.
AU Kuwahara, Hideo; Miyamoto, Yoichi; Akaike, Takaaki [Reprint author]; Kubota, Tatsuo; Sawa, Tomohiro; Okamoto, Shinichiro; Maeda, Hiroshi [Reprint author]
CS Department of Microbiology, Kumamoto University School of Medicine, 2-2-1 Honjo, Kumamoto, 860-0811, Japan
SO Infection and Immunity, (August, 2000) Vol. 68, No. 8, pp. 4378-4383. print.
CODEN: INFIBR. ISSN: 0019-9567.
DT Article
LA English
ED Entered STN: 20 Sep 2000
Last Updated on STN: 8 Jan 2002
AB Helicobacter pylori can produce a persistent infection in the human stomach, where chronic and active inflammation, including the infiltration

of phagocytes such as neutrophils and monocytes, is induced. H. pylori may have a defense system against the antimicrobial actions of phagocytes. We studied the defense mechanism of H. pylori against host-derived peroxynitrite (ONOO-), a ***bactericidal*** metabolite of nitric oxide, focusing on the role of H. pylori urease, which produces CO2 and NH3 from urea and is known to be an essential factor for colonization. The viability of H. pylori decreased in a time-dependent manner with continuous exposure to 1 muM ONOO-, i.e., 0.2% of the initial ***bacteria*** remained after a 5-min treatment without urea. The ***bactericidal*** action of ONOO- against H. pylori was significantly attenuated by the addition of 10 mM urea, the substrate for urease, whereas ONOO--induced killing of a ***urease*** - ***deficient*** mutant of H. pylori or Campylobacter jejuni, another microaerophilic ***bacterium*** lacking urease, was not affected by the addition of urea. Such as protective effect of urea was potentiated by supplementation with exogenous urease, and it was almost completely nullified by 10 muM flurofamide, a specific inhibitor of urease. The ***bactericidal*** action of ONOO- was also suppressed by the addition of 20 mM NaHCO3 but not by the addition of 20 mM NH3. In addition, the nitration of L-tyrosine of H. pylori after treatment with ONOO- was significantly reduced by the addition of urea or NaHCO3, as assessed by high-performance liquid chromatography with electrochemical detection. These results suggest that H. pylori-associated urease functions to produce a potent ONOO- scavenger, CO2/HCO3-, that defends the ***bacteria*** from ONOO- cytotoxicity. The protective effect of urease may thus facilitate sustained ***bacterial*** colonization in the infected gastric mucosa.

TI Helicobacter pylori urease suppresses ***bactericidal*** activity of peroxynitrite via carbon dioxide production.

AB . . system against the antimicrobial actions of phagocytes. We studied the defense mechanism of H. pylori against host-derived peroxynitrite (ONOO-), a ***bactericidal*** metabolite of nitric oxide, focusing on the role of H. pylori urease, which produces CO2 and NH3 from urea and. . . of H. pylori decreased in a time-dependent manner with continuous exposure to 1 muM ONOO-, i.e., 0.2% of the initial ***bacteria*** remained after a 5-min treatment without urea. The ***bactericidal*** action of ONOO- against H. pylori was significantly attenuated by the addition of 10 mM urea, the substrate for urease, whereas ONOO--induced killing of a ***urease*** - ***deficient*** mutant of H. pylori or Campylobacter jejuni, another microaerophilic ***bacterium*** lacking urease, was not affected by the addition of urea. Such as protective effect of urea was potentiated by supplementation with exogenous urease, and it was almost completely nullified by 10 muM flurofamide, a specific inhibitor of urease. The ***bactericidal*** action of ONOO- was also suppressed by the addition of 20 mM NaHCO3 but not by the addition of 20. . . electrochemical detection. These results suggest that H. pylori-associated urease functions to produce a potent ONOO- scavenger, CO2/HCO3-, that defends the ***bacteria*** from ONOO- cytotoxicity. The protective effect of urease may thus facilitate sustained ***bacterial*** colonization in the infected gastric mucosa.

IT . . .

Organisms

gastric mucosa: digestive system, infection; phagocytes: immune system; stomach: digestive system

IT Chemicals & Biochemicals

carbon dioxide: production; peroxynitrite: ***bactericidal***

activity, nitric oxide ***bactericidal*** metabolite; urease: Helicobacter pylori
ORGN Classifier
Aerobic Helical or Vibrioid Gram-Negatives 06210
Super Taxa
Eubacteria; ***Bacteria*** ; Microorganisms
Organism Name
Campylobacter jejuni: pathogen
Helicobacter pylori: defense mechanism, pathogen
Taxa Notes
Bacteria , Eubacteria, Microorganisms
ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human
Taxa Notes
Animals, Chordates,. . .

L11 ANSWER 8 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
AN 1999:114559 BIOSIS <<LOGINID::20080330>>
DN PREV199900114559
TI Genetic and physiologic characterization of urease of Actinomyces naeslundii.
AU Morou-Bermudez, Evangelia; Burne, Robert A. [Reprint author]
CS Cent. Oral Biol., Univ. Rochester Med. Cent., 601 Elmwood Ave., Rochester, NY 14642, USA
SO Infection and Immunity, (Feb., 1999) Vol. 67, No. 2, pp. 504-512. print. CODEN: INFIBR. ISSN: 0019-9567.
DT Article
LA English
ED Entered STN: 12 Mar 1999
Last Updated on STN: 12 Mar 1999
AB Ammonia production from urea by ureolytic oral ***bacteria*** is believed to have a significant impact on oral health and the ecological balance of oral microbial populations. In this study we cloned and characterized the urease gene cluster of Actinomyces naeslundii, which is one of the pioneer organisms in the oral cavity and a significant constituent of supragingival and subgingival dental plaque in children and adults. An internal fragment of the ureC gene of A. naeslundii WVU45 was initially amplified by PCR with degenerate primers derived from conserved amino acid sequences of the large catalytic subunit of urease in ***bacteria*** and plants. The PCR product was then used as a probe to identify recombinant ***bacteriophages*** carrying the A. naeslundii urease gene cluster and roughly 30 kbp of flanking DNA. Nucleotide sequence analysis demonstrated that the gene cluster was comprised of seven contiguously arranged open reading frames with significant homologies at the protein and nucleotide sequence levels to the ureABCEFGD genes from other organisms. By using primer extension, a putative transcription initiation site was mapped at 66 bases 5' to the start codon of ureA. A ***urease*** - ***deficient*** strain was constructed by insertion of a kanamycin resistance determinant within the ureC gene via allelic replacement. In contrast to the wild-type organism, the isogenic mutant was unable to grow in a semidefined medium supplemented with urea as the nitrogen source and was not protected by the addition of urea against killing in moderately acidic environments. These data indicated

that urea can be effectively utilized as a nitrogen source by A. naeslundii via a urease-dependent pathway and that ureolysis can protect A. naeslundii against environmental acidification at physiologically relevant pH values. Therefore, urease could confer to A. naeslundii critical selective advantages over nonureolytic organisms in dental plaque, constituting an important determinant of plaque ecology.

AB Ammonia production from urea by ureolytic oral ***bacteria*** is believed to have a significant impact on oral health and the ecological balance of oral microbial populations. In this. . . amplified by PCR with degenerate primers derived from conserved amino acid sequences of the large catalytic subunit of urease in ***bacteria*** and plants. The PCR product was then used as a probe to identify recombinant ***bacteriophages*** carrying the A. naeslundii urease gene cluster and roughly 30 kbp of flanking DNA. Nucleotide sequence analysis demonstrated that the. . . primer extension, a putative transcription initiation site was mapped at 66 bases 5' to the start codon of ureA. A ***urease*** - ***deficient*** strain was constructed by insertion of a kanamycin resistance determinant within the ureC gene via allelic replacement. In contrast to. . .

IT Major Concepts
Enzymology (Biochemistry and Molecular Biophysics); Infection

IT Diseases
dental plaque: ***bacterial*** disease, dental and oral disease
Dental Plaque (MeSH)

IT Chemicals & Biochemicals
ammonia: production; urea; urease; Actinomyces naeslundii ureA gene; Actinomyces. . .

ORGN Classifier
Irregular Nonsporing Gram-Positive Rods 08890
Super Taxa
Actinomycetes and Related Organisms; Eubacteria; ***Bacteria*** ; Microorganisms
Organism Name
Actinomyces naeslundii: pathogen, strain-WVU45
Taxa Notes
Bacteria , Eubacteria, Microorganisms

L11 ANSWER 9 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
AN 1996:361212 BIOSIS <<LOGINID::20080330>>
DN PREV199699083568
TI Factors affecting growth and antibiotic susceptibility of Helicobacter pylori: Effect of pH and urea on the survival of a wild-type strain and a ***urease*** - ***deficient*** mutant.
AU Sjostrom, J. E. [Reprint author]; Larsson, H.
CS Dep. Cell Biol., Astra Hassle AB, Molndal, Sweden
SO Journal of Medical Microbiology, (1996) Vol. 44, No. 6, pp. 425-433.
CODEN: JMMIAV. ISSN: 0022-2615.
DT Article
LA English
ED Entered STN: 14 Aug 1996
Last Updated on STN: 15 Aug 1996
AB This study investigated how pH and the presence of urea affect the survival and growth of Helicobacter pylori and whether these factors affect susceptibility to antibiotics in vitro. The viability of a wild-type strain and a ***urease*** - ***deficient*** mutant of H. pylori was studied after incubation for 1 h in buffers at different pH values at 37 degree C under microaerophilic conditions. Viable counts

were not affected at pH 5 and pH 7. In buffer at pH 3, there were no viable organisms, but urea (6.25 mm) protected the wild-type strain, which survived well. At pH 9, urea further reduced the viability of H. pylori and flurofamide almost abolished the effect of urea on the wild-type strain. Neither urea nor flurofamide affected the viability of the ***urease*** - ***deficient*** mutant under the same conditions. Growth was also pH dependent and was enhanced in shake-cultures. At pH 5, urea supported growth of the wild-type strain, but at pH 7 a toxic effect on the ***bacteria*** was observed. Growth of H. pylori at pH 5.9 was poor, and susceptibility to amoxycillin, erythromycin and clarithromycin was markedly less than at pH 7.2 and 7.9. The ***bactericidal*** activities of metronidazole and tetracycline were similar at the different pH values studied. At neutral pH the killing rates of amoxycillin and clarithromycin were growth rate dependent. Susceptibility to metronidazole was enhanced in stationary cultures. The interaction obtained between the proton pump inhibitor, omeprazole, and amoxycillin at pH 7 was of additive type. These results suggest that pH and growth conditions may be important in the antibacterial efficacy of different antibiotics in vivo and also provide a possible explanation for the potentiating effect of omeprazole with antibiotics in the treatment of H. pylori infections.

TI. . . and antibiotic susceptibility of Helicobacter pylori: Effect of pH and urea on the survival of a wild-type strain and a ***urease*** - ***deficient*** mutant.

AB. . . Helicobacter pylori and whether these factors affect susceptibility to antibiotics in vitro. The viability of a wild-type strain and a ***urease*** - ***deficient*** mutant of H. pylori was studied after incubation for 1 h in buffers at different pH values at 37 degree. . . flurofamide almost abolished the effect of urea on the wild-type strain. Neither urea nor flurofamide affected the viability of the ***urease*** - ***deficient*** mutant under the same conditions. Growth was also pH dependent and was enhanced in shake-cultures. At pH 5, urea supported growth of the wild-type strain, but at pH 7 a toxic effect on the ***bacteria*** was observed. Growth of H. pylori at pH 5.9 was poor, and susceptibility to amoxycillin, erythromycin and clarithromycin was markedly less than at pH 7.2 and 7.9. The ***bactericidal*** activities of metronidazole and tetracycline were similar at the different pH values studied. At neutral pH the killing rates of. . .

ORGN Classifier
Aerobic Helical or Vibrioid Gram-Negatives 06210
Super Taxa
Eubacteria; ***Bacteria*** ; Microorganisms
Organism Name
aerobic helical or vibrioid gram-negative ***bacteria***
Helicobacter pylori
Taxa Notes
Bacteria , Eubacteria, Microorganisms

ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human
Taxa Notes
Animals, Chordates,. . .

L11 ANSWER 10 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on

STN
AN 1996:183710 BIOSIS <<LOGINID::20080330>>
DN PREV199698739839
TI In vitro antibacterial activity of omeprazole and its selectivity for Helicobacter spp. are dependent on incubation conditions.
AU Sjostrom, J. E. [Reprint author]; Fryklund, J.; Kuhler, T.; Larsson, H.
CS Astra Hassle AB, Dep. Cell Biol., S-431 83 Molndal, Sweden
SO Antimicrobial Agents and Chemotherapy, (1996) Vol. 40, No. 3, pp. 621-626. CODEN: AMACCQ. ISSN: 0066-4804.
DT Article
LA English
ED Entered STN: 29 Apr 1996
Last Updated on STN: 29 Apr 1996
AB Factors affecting the in vitro antibacterial activity of omeprazole were studied. Our data show that 3H-labeled omeprazole covalently bound to Helicobacter pylori and to other gram-negative and gram-positive ***bacteria*** . The compound was found to bind to a broad range of proteins in H. pylori, and at pH 5, binding was enhanced 15-fold compared with binding at pH 7. The ***bactericidal*** activity correlated to the degree of binding, and at pH 5, a pH at which omeprazole readily converts to the active sulfenamide form, beta-mercaptoethanol, a known scavenger of sulfenamide, and fetal calf serum, to which noncovalent protein binding of omeprazole is known to occur, reduced the level of binding and almost entirely abolished the ***bactericidal*** activity. At pH 7 the killing activities of omeprazole and structural analogs (e.g., proton pump inhibitors) were dependent on the time-dependent conversion (half-life) to the corresponding sulfenamide. The ***bactericidal*** activity exerted by the sulfenamide form at pH 5 was not specific for the genus Helicobacter. However, in brucella broth at pH 7 with 10% fetal calf serum, only Helicobacter spp. were susceptible to omeprazole, with MBCs in the range of 32 to 64 mu-g/ml, and MBCs for more stable proton pump inhibitors were higher. Wild-type H. pylori and its isogenic ***urease*** - ***deficient*** mutant were equally susceptible to omeprazole. Thus, the urease is not a lethal target for omeprazole action in H. pylori. In conclusion, the antibacterial activities of omeprazole and analogs are dependent on pH and the composition of the medium used. Thus, at a low pH in buffer, these compounds have a nonselective action, whereas in broth at neutral pH, the mechanism of action is selective for Helicobacter spp.
AB. . . omeprazole were studied. Our data show that 3H-labeled omeprazole covalently bound to Helicobacter pylori and to other gram-negative and gram-positive ***bacteria*** . The compound was found to bind to a broad range of proteins in H. pylori, and at pH 5, binding was enhanced 15-fold compared with binding at pH 7. The ***bactericidal*** activity correlated to the degree of binding, and at pH 5, a pH at which omeprazole readily converts to the. . . which noncovalent protein binding of omeprazole is known to occur, reduced the level of binding and almost entirely abolished the ***bactericidal*** activity. At pH 7 the killing activities of omeprazole and structural analogs (e.g., proton pump inhibitors) were dependent on the time-dependent conversion (half-life) to the corresponding sulfenamide. The ***bactericidal*** activity exerted by the sulfenamide form at pH 5 was not specific for the genus Helicobacter. However, in brucella broth. . . 32 to 64 mu-g/ml, and MBCs for more stable proton pump inhibitors were higher. Wild-type H. pylori and its isogenic ***urease*** - ***deficient*** mutant were equally susceptible to omeprazole. Thus, the urease is not a lethal target for omeprazole action in H. pylori.. . .

ORGN Classifier
Aerobic Helical or Vibrioid Gram-Negatives 06210
Super Taxa
Eubacteria; ***Bacteria*** ; Microorganisms
Organism Name
aerobic helical or vibrioid gram-negative ***bacteria***
Helicobacter pylori
Taxa Notes
Bacteria , Eubacteria, Microorganisms

L11 ANSWER 11 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
AN 1995:315763 BIOSIS <<LOGINID::20080330>>
DN PREV199598330063
TI Avirulent, ***urease*** - ***deficient*** Helicobacter pylori colonizes gastric epithelial explants ex vivo.
AU Eaton, K. A. [Reprint author]; Krakowka, S.
CS Dep. Vet. Pathobiol., OSU, 1925 Coffey Rd., Columbus, OH 43210, USA
SO Scandinavian Journal of Gastroenterology, (1995) Vol. 30, No. 5, pp. 434-437.
CODEN: SJGRA4. ISSN: 0036-5521.
DT Article
LA English
ED Entered STN: 30 Jul 1995
Last Updated on STN: 30 Jul 1995
AB Background: Urease-negative Helicobacter pylori generated by insertional mutagenesis fails to colonize gnotobiotic piglets, and this effect is largely independent of gastric pH. The purpose of this study was to determine whether urease-negative H. pylori colonizes gastric explants ex vivo. Methods: Gastric mucosal explants derived from neonatal germ-free piglets were inoculated with either wild-type H. pylori or one of two mutants derived by insertional mutagenesis. Results: All three ***bacterial*** strains colonized explants. The level of colonization increased over the duration of the experiment, reaching 10-8-10-9 cfu/g gastric mucosa by 72 h after inoculation. Morphologic evidence of colonization was similar to that observed in gnotobiotic piglets. Conclusions: Colonization of explants was not affected by lack of urease. These results contrast with previous findings showing that urease activity is essential for colonization of piglets by H. pylori. Thus, urease-dependent colonization is dependent on an intact gastric microenvironment.
TI Avirulent, ***urease*** - ***deficient*** Helicobacter pylori colonizes gastric epithelial explants ex vivo.
AB. . . piglets were inoculated with either wild-type H. pylori or one of two mutants derived by insertional mutagenesis. Results: All three ***bacterial*** strains colonized explants. The level of colonization increased over the duration of the experiment, reaching 10-8-10-9 cfu/g gastric mucosa by. . .
ORGN Classifier
Aerobic Helical or Vibrioid Gram-Negatives 06210
Super Taxa
Eubacteria; ***Bacteria*** ; Microorganisms
Organism Name
aerobic helical or vibrioid gram-negative ***bacteria***
Helicobacter pylori
Taxa Notes
Bacteria , Eubacteria, Microorganisms

ORGN Classifier
Suidae 85740
Super Taxa
Artiodactyla; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
pig
Taxa Notes
Animals, Artiodactyls,. . .

L11 ANSWER 12 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
AN 1994:446969 BIOSIS <<LOGINID::20080330>>
DN PREV199497459969
TI Effect of gastric pH on urease-dependent colonization of gnotobiotic piglets by Helicobacter pylori.
AU Eaton, Kathryn A. [Reprint author]; Krakowka, Steven
CS Dep. Veterinary Pathobiol., Ohio State Univ., 1925 Coffey Road, Columbus, OH 43210, USA
SO Infection and Immunity, (1994) Vol. 62, No. 9, pp. 3604-3607.
CODEN: INFIBR. ISSN: 0019-9567.
DT Article
LA English
ED Entered STN: 24 Oct 1994
Last Updated on STN: 25 Oct 1994
AB Thirty-seven gnotobiotic piglets from seven litters were infected with either Helicobacter pylori N6 or urease-negative H. pylori N6ureG::Km, which contains an insertion in the ureG gene and produces inactive urease. To produce achlorhydria, piglets were treated throughout the experiment with omeprazole (5 mg intravenously every 12 h) and ranitidine (75 mg orally every 6 h). Treatment resulted in elevation of gastric pH to 7.0 +- 1.1 throughout the experiment. Control piglets were not treated and remained normochlorhydric. Strain N6 colonized well in both normal and achlorhydric piglets. All 10 piglets were colonized, and colonization ranged from 4.4 +- 1.5 log,, CFU/g of gastric mucosa in normochlorhydric piglets sacrificed after 2 days to 6.9 +- 0.5 log-10 CFU/g in normochlorhydric piglets sacrificed after 5 days. Strain N6ureG::Km did not colonize any of seven normochlorhydric piglets and was recovered only in low numbers (lt 100 CFU/g) from four of nine achlorhydric piglets. In the second experiment, piglets were coinoculated with both strains N6 and N6ureG::Km. Coinoculation did not affect colonization by urease-positive N6. ***Urease*** - ***deficient*** N6ureG::Km was unable to colonize even in the presence of urease-positive ***bacteria*** . These results confirm that urease enzymatic activity (and not urease protein) is essential for colonization, that this effect is independent of diffusible products of urea metabolism, and that gastric pH protection is not a major role of urease in promoting colonization by H. pylori.
AB. . . the second experiment, piglets were coinoculated with both strains N6 and N6ureG::Km. Coinoculation did not affect colonization by urease-positive N6. ***Urease*** - ***deficient*** N6ureG::Km was unable to colonize even in the presence of urease-positive ***bacteria*** . These results confirm that urease enzymatic activity (and not urease protein) is essential for colonization, that this effect is independent. . .
ORGN Classifier
Aerobic Helical or Vibrioid Gram-Negatives 06210
Super Taxa
Eubacteria; ***Bacteria*** ; Microorganisms

Organism Name
aerobic helical or vibrioid gram-negative ***bacteria***
Helicobacter pylori
Taxa Notes
Bacteria , Eubacteria, Microorganisms
ORGN Classifier
Suidae 85740
Super Taxa
Artiodactyla; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
pig
Taxa Notes
Animals, Artiodactyls,. . .

L11 ANSWER 13 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
AN 1993:333419 BIOSIS <<LOGINID::20080330>>
DN PREV199345028144
TI An isogenic ***urease*** - ***deficient*** mutant of Helicobacter pylori colonizes gastric epithelial explants, but not germ-free piglets.
AU Eaton, K. A. [Reprint author]; Labigne, A. F.; Krakowka, S.
CS Dep. Vet. Pathobiol., Ohio State Univ., Columbus, OH, USA
SO Gastroenterology, (1993) Vol. 104, No. 4 SUPPL., pp. A694.
Meeting Info.: 94th Annual Meeting of the American Gastroenterological Association. Boston, Massachusetts, USA. May 15-21, 1993.
CODEN: GASTAB. ISSN: 0016-5085.
DT Conference; (Meeting)
LA English
ED Entered STN: 16 Jul 1993
Last Updated on STN: 31 Aug 1993
TI An isogenic ***urease*** - ***deficient*** mutant of Helicobacter pylori colonizes gastric epithelial explants, but not germ-free piglets.
ORGN Classifier
Aerobic Helical or Vibrioid Gram-Negatives 06210
Super Taxa
Eubacteria; ***Bacteria*** ; Microorganisms
Organism Name
aerobic helical or vibrioid gram-negative ***bacteria***
Helicobacter pylori
Taxa Notes
Bacteria , Eubacteria, Microorganisms
ORGN Classifier
Suidae 85740
Super Taxa
Artiodactyla; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
Suidae
Taxa Notes
Animals, Artiodactyls,. . .

L11 ANSWER 14 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
AN 1992:327557 BIOSIS <<LOGINID::20080330>>
DN PREV199294029398; BA94:29398
TI CHARACTERIZATION OF HELICOBACTER-PYLORI UREASE MUTANTS.
AU SEGAL E D [Reprint author]; SHON J; TOMPKINS L S
CS DEP MICROBIOL IMMUNOL, DIGESTIVE DISEASES CENTER, STANFORD UNIV, STANFORD,

CALIF 94305, USA
SO Infection and Immunity, (1992) Vol. 60, No. 5, pp. 1883-1889.
CODEN: INFIBR. ISSN: 0019-9567.
DT Article
FS BA
LA ENGLISH
ED Entered STN: 11 Jul 1992
Last Updated on STN: 11 Jul 1992
AB The association between Helicobacter pylori, gastritis, and peptic ulcer is well established, and the association of infection with gastric cancer has been noted in several developing countries. However, the pathogenic mechanism(s) leading to disease states has not been elucidated. The H. pylori urease is thought to be a determinant of pathogenicity, since the enzyme is produced by all H. pylori clinical isolates. Evidence indicates that some H. pylori strains are more cytotoxic than others, with a correlation between the activity of the urease and the presence of a vacuolating cytotoxin having been made. However, the number of cytotoxins remains unknown at this time. The relationship between the urease and cytotoxicity has previously been examined with chemical inhibitors. To examine the role of the urease and its relationship to cytotoxicity, ***urease*** - ***deficient*** mutants were produced following ethyl methanesulfonate mutagenesis of H. pylori 87A300. Two mutants (the ure1 and ure5 mutants) which were entirely deficient in urease activity (Ure-) were selected. Characterization of the isolates at the protein level showed that the urease subunits lacked the ability to complex and form the active urease enzyme. The ure1 mutant was shown to be sensitive to the effects of low pH in vitro and exhibited no cytotoxicity to eucaryotic cells, whereas the parental strain (Ure+) produced a cytotoxic effect in the presence of urea. Interaction between the H. pylori Ure+ and Ure- produced a cytotoxic effect in the presence of urea. Interaction between the H. pylori Ure+ and Ure- strains and Caco-2 cells appeared to be similar in that both ***bacterial*** types elicited pedestal formation and actin condensation. These results indicate that the H. pylori ureas may have many functions, among them (i) protecting H. pylori against the acidic environment of the stomach, (ii) acting as a cytotoxin, with human gastric cells especially susceptible to its activity, and (iii) disrupting cell tight junctions in such a manner than the cells remain viable but an ionic flow between the cells occurs.
AB. . . cytotoxicity has previously been examined with chemical inhibitors. To examine the role of the urease and its relationship to cytotoxicity, ***urease*** - ***deficient*** mutants were produced following ethyl methanesulfonate mutagenesis of H. pylori 87A300. Two mutants (the ure1 and ure5 mutants) which were. . . urea. Interaction between the H. pylori Ure+ and Ure- strains and Caco-2 cells appeared to be similar in that both ***bacterial*** types elicited pedestal formation and actin condensation. These results indicate that the H. pylori ureas may have many functions, among. . .
ORGN Classifier
Aerobic Helical or Vibrioid Gram-Negatives 06210
Super Taxa
Eubacteria; ***Bacteria*** ; Microorganisms
Taxa Notes
Bacteria , Eubacteria, Microorganisms
ORGN Classifier
Vertebrata 85150
Super Taxa
Chordata; Animalia

Taxa Notes
Animals, Chordates, Nonhuman Vertebrates, Vertebrates

L11 ANSWER 15 OF 20 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
AN 1992:41708 BIOSIS <<LOGINID::20080330>>
DN PREV199242017858; BR42:17858
TI CONSTRUCTION OF ***UREASE*** ***DEFICIENT*** MUTANTS OF HELICOBACTER-PYLORI BY ALLELIC EXCHANGE.
AU FERRERO R [Reprint author]; CUSSAC V; COURCOUX P; LABIGNE A
CS UNITE ENTEROBACTERIES, INSERM U199, INST PASTEUR, 75724 PARIS CEDEX 15, FR
SO Microbial Ecology in Health and Disease, (1991) Vol. 4, No. SPEC. ISSUE, pp. S136.
Meeting Info.: VITH INTERNATIONAL WORKSHOP ON CAMPYLOBACTER HELICOBACTER AND RELATED ORGANISMS, SYDNEY, NEW SOUTH WALES, AUSTRALIA, OCTOBER 7-10, 1991. MICROB ECOL HEALTH DIS.
ISSN: 0891-060X.
DT Conference; (Meeting)
FS BR
LA ENGLISH
ED Entered STN: 7 Jan 1992
Last Updated on STN: 8 Jan 1992
TI CONSTRUCTION OF ***UREASE*** ***DEFICIENT*** MUTANTS OF HELICOBACTER-PYLORI BY ALLELIC EXCHANGE.
ORGN Classifier
Aerobic Helical or Vibrioid Gram-Negatives 06210
Super Taxa
Eubacteria; ***Bacteria*** ; Microorganisms
Taxa Notes
Bacteria , Eubacteria, Microorganisms
ORGN Classifier
Enterobacteriaceae 06702
Super Taxa
Facultatively Anaerobic Gram-Negative Rods; Eubacteria; ***Bacteria*** ; Microorganisms
Taxa Notes
Bacteria , Eubacteria, Microorganisms

L11 ANSWER 16 OF 20 CABA COPYRIGHT 2008 CABI on STN
AN 95:23391 CABA <<LOGINID::20080330>>
DN 19941908449
TI Hydrogenase and urease in cyanobacterial photosynthesis and nitrogen fixation
AU Ewart, G. D.; Mackerras, A. H.; Smith, G. D.; Kashyap, A. K. [EDITOR]; Kumar, H. D. [EDITOR]
CS Department of Biochemistry, Fculty of Science, Australian National University, Canberra, ACT 2601, Australia.
SO Recent advances in phycology, (1994) pp. 21-30. 26 ref.
Publisher: Rastogi Publications. Meerut
ISBN: 81-85711-05-4
CY India
DT Miscellaneous
LA English
ED Entered STN: 1 Feb 1995
Last Updated on STN: 1 Feb 1995
AB In the cyanobacterium Anabaena cylindrica both hydrogenase and urease activities are dependent on the presence of Ni in the growth medium. In

cyanobacteria there are two forms of hydrogenase: soluble and membrane bound. Electrophoretic analysis showed that the enzyme is a dimer consisting of 2 subunits. Tritium exchange and reductive hydrogenase activities could be differentially inhibited. Growth of cells in the absence of Ni produced hydrogenase and ***urease*** - ***deficient*** cells. The exponential growth rate of nitrogen-fixing cells in A. cylindrica was not inhibited by the absence of Ni. Growth of A. cylindrica was dependent on Ni when non-nitrogen-fixing cells were used to reinitiate nitrogen-fixing growth. Nickel-deficient cells showed a pronounced growth lag which was associated with loss of pigment, delayed nitrogenase synthesis, and cyanophycin accumulation. These observations suggested a role for Ni in nitrogen metabolism in addition to that as a cofactor for urease.

AB . . . exchange and reductive hydrogenase activities could be differentially inhibited. Growth of cells in the absence of Ni produced hydrogenase and ***urease*** - ***deficient*** cells. The exponential growth rate of nitrogen-fixing cells in A. cylindrica was not inhibited by the absence of Ni. Growth. . .

ORGN ***bacteria*** ; Cyanobacteria

L11 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2006:380705 CAPLUS <<LOGINID::20080330>>
DN 144:410795
TI Recombinant ***Mycobacterium*** BCG adjuvant in vaccination
IN Laeufer, Albrecht; Eisele, Bernd; Grode, Leander
PA Vakzine Projekt Management G.m.b.H., Germany
SO Eur. Pat. Appl., 17 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1649869	A1	20060426	EP 2004-25096	20041021
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	AU 2005298976	A1	20060504	AU 2005-298976	20051016
	CA 2584321	A1	20060504	CA 2005-2584321	20051016
	WO 2006045468	A1	20060504	WO 2005-EP11127	20051016
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	EP 1802340	A1	20070704	EP 2005-795016	20051016
	R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
	CN 101048178	A	20071003	CN 2005-80036326	20051016
	IN 2007DN02871	A	20070817	IN 2007-DN2871	20070418
	MX 200704734	A	20070713	MX 2007-4734	20070419

KR 2007068398 A 20070629 KR 2007-709076 20070420
PRAI EP 2004-25096 A 20041021
WO 2005-EP11127 W 20051016
AB The authors disclose the use of ***urease*** - ***deficient*** ***Mycobacterium*** BCG expressing listeriolysin as an adjuvant in vaccination. In one example, a tumor vaccine comprises a allogeneic prostate carcinoma cell line, transgenic for interferon-.gamma. and interleukin-2, in combination with the foregoing ***bacterial*** cell adjuvant.
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT
TI Recombinant ***Mycobacterium*** BCG adjuvant in vaccination
AB The authors disclose the use of ***urease*** - ***deficient*** ***Mycobacterium*** BCG expressing listeriolysin as an adjuvant in vaccination. In one example, a tumor vaccine comprises a allogeneic prostate carcinoma cell line, transgenic for interferon-.gamma. and interleukin-2, in combination with the foregoing ***bacterial*** cell adjuvant.
ST ***Mycobacterium*** cytolysin adjuvant vaccine
IT Vaccines
(antimalarial; ***urease*** - ***deficient*** ***Mycobacterium*** BCG expressing listeriolysin as adjuvant for)
IT Antigens
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(autoantigens, microbial; ***urease*** - ***deficient*** ***Mycobacterium*** BCG expressing listeriolysin as adjuvant in vaccination against)
IT Prostate gland, neoplasm
(carcinoma; ***urease*** - ***deficient*** ***Mycobacterium*** BCG expressing listeriolysin as vaccine adjuvant for cytokine-transgenic cell immunogens)
IT Intestine, neoplasm
(colon, carcinoma; ***urease*** - ***deficient*** ***Mycobacterium*** BCG expressing listeriolysin as vaccine adjuvant for cytokine-transgenic cell immunogens)
IT Carcinoma
(colon; ***urease*** - ***deficient*** ***Mycobacterium*** BCG expressing listeriolysin as vaccine adjuvant for cytokine-transgenic cell immunogens)
IT Carcinoma
(head and neck squamous cell carcinoma; ***urease*** - ***deficient*** ***Mycobacterium*** BCG expressing listeriolysin as vaccine adjuvant for cytokine-transgenic cell immunogens)
IT Cell adhesion molecules
Interleukin 12
Interleukin 2
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(in combination with ***urease*** - ***deficient*** ***Mycobacterium*** BCG expressing listeriolysin as adjuvant in vaccination)
IT Hemolysins
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(listeriolysins O; ***urease*** - ***deficient*** ***Mycobacterium*** BCG expressing listeriolysin as adjuvant in vaccination)

IT Antigens
Tumor antigens
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(microbial; ***urease*** - ***deficient*** ***Mycobacterium***
BCG expressing listeriolysin as adjuvant in vaccination against)
IT Lung, neoplasm
(non-small-cell carcinoma; ***urease*** - ***deficient***
Mycobacterium BCG expressing listeriolysin as vaccine adjuvant
for cytokine-transgenic cell immunogens)
IT Lysosome
(phagolysosome; ***urease*** - ***deficient***
Mycobacterium BCG expressing listeriolysin as adjuvant in
vaccination in relation to)
IT Carcinoma
(prostatic; ***urease*** - ***deficient*** ***Mycobacterium***
BCG expressing listeriolysin as vaccine adjuvant for
cytokine-transgenic cell immunogens)
IT Carcinoma
(pulmonary non-small-cell; ***urease*** - ***deficient***
Mycobacterium BCG expressing listeriolysin as vaccine adjuvant
for cytokine-transgenic cell immunogens)
IT Kidney, neoplasm
(renal cell carcinoma; ***urease*** - ***deficient***
Mycobacterium BCG expressing listeriolysin as vaccine adjuvant
for cytokine-transgenic cell immunogens)
IT Carcinoma
(renal cell; ***urease*** - ***deficient*** ***Mycobacterium***
BCG expressing listeriolysin as vaccine adjuvant for
cytokine-transgenic cell immunogens)
IT Head and Neck, neoplasm
(squamous cell carcinoma; ***urease*** - ***deficient***
Mycobacterium BCG expressing listeriolysin as vaccine adjuvant
for cytokine-transgenic cell immunogens)
IT Vaccines
(tumor; ***urease*** - ***deficient*** ***Mycobacterium***
BCG expressing listeriolysin as adjuvant for)
IT MSP-1 (protein)
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
(***urease*** - ***deficient*** ***Mycobacterium*** BCG
expressing listeriolysin as adjuvant for)
IT Plasmodium falciparum
(***urease*** - ***deficient*** ***Mycobacterium*** BCG
expressing listeriolysin as adjuvant for merozoite surface protein of)
IT Malaria
(***urease*** - ***deficient*** ***Mycobacterium*** BCG
expressing listeriolysin as adjuvant for vaccination against)
IT Human
Mycobacterium BCG
Mycobacterium ***bovis***
(***urease*** - ***deficient*** ***Mycobacterium*** BCG
expressing listeriolysin as adjuvant in vaccination)
IT Antigen-presenting cell
Brain, neoplasm
Dendritic cell
Mammary gland, neoplasm
Melanoma

Neoplasm
(***urease*** - ***deficient*** ***Mycobacterium*** BCG expressing listeriolysin as vaccine adjuvant for cytokine-transgenic cell immunogens)

IT Antimalarials
Antitumor agents
(vaccines; ***urease*** - ***deficient*** ***Mycobacterium*** BCG expressing listeriolysin as adjuvant for)

IT Interferons
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(.gamma.; in combination with ***urease*** - ***deficient*** ***Mycobacterium*** BCG expressing listeriolysin as adjuvant in vaccination)

IT 884349-82-0
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(amino acid sequence; ***urease*** - ***deficient*** ***Mycobacterium*** BCG expressing listeriolysin as adjuvant in vaccination)

IT 9002-13-5D, Urease, subunit C
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(deficiency; ***urease*** - ***deficient*** ***Mycobacterium*** BCG expressing listeriolysin as adjuvant in vaccination)

IT 884349-81-9, DNA (Listeria monocytogenes gene hyl)
RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(nucleotide sequence; ***urease*** - ***deficient*** ***Mycobacterium*** BCG expressing listeriolysin as adjuvant in vaccination)

L11 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1997:498189 CAPLUS <<LOGINID::20080330>>
DN 127:188074
TI Interactions of a catalase- and an urease-negative mutant of Helicobacter pylori with polymorphonuclear granulocytes
AU Marxer, Martin; Farzam, Fardad; Spiegelhalder, Christiane; Kersten, Astrid; Odenbreit, Stefan; Haas, Rainer; Kist, Manfred
CS Inst. fur Med. Mikrobiologie und Hygiene, Freiburg, 79104, Germany
SO Campylobacters, Helicobacters, and Related Organisms, [Proceedings of the International Workshop on Campylobacters, Helicobacters, and Related Organisms], 8th, Winchester, UK, July 10-13, 1995 (1996), Meeting Date 1995, 701-705. Editor(s): Newell, Diane G.; Ketley, Julian M.; Feldman, Roger A. Publisher: Plenum, New York, N. Y.
CODEN: 64TNAY
DT Conference
LA English
AB To examine whether or not catalase and urease play a role as virulence factors of H. pylori, isogenic catalase- or ***urease*** - ***deficient*** mutant strains, constructed by transposon mutagenesis, were compared with the corresponding wild-type strain 69A with respect to their interactions with polymorphonuclear nucleophiles (PMNs), including sensitivity towards killing by PMNs, strength of the oxidative burst, and electron microscopic studies. The results from the the catalase-neg. mutant indicated that although catalase is able to scavenge hydrogen peroxide, it does not protect the ***bacteria*** efficiently from

PMN-induced killing. In the case of the urease-neg. mutant, the phagocytic oxidative burst in the presence of the mutant was not significantly increased compared to that induced by the wild type, thus suggesting that non-oxygen-mediated killing mechanisms of the PMNs are responsible form the more efficient ***bactericidal*** activity on the ***urease*** - ***deficient*** mutant.

AB To examine whether or not catalase and urease play a role as virulence factors of H. pylori, isogenic catalase- or ***urease*** - ***deficient*** mutant strains, constructed by transposon mutagenesis, were compared with the corresponding wild-type strain 69A with respect to their interactions with. . . from the the catalase-neg. mutant indicated that although catalase is able to scavenge hydrogen peroxide, it does not protect the ***bacteria*** efficiently from PMN-induced killing. In the case of the urease-neg. mutant, the phagocytic oxidative burst in the presence of the. . . induced by the wild type, thus suggesting that non-oxygen-mediated killing mechanisms of the PMNs are responsible form the more efficient ***bactericidal*** activity on the ***urease*** - ***deficient*** mutant.

L11 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1992:172374 CAPLUS <<LOGINID::20080330>>
DN 116:172374
TI Selection of L-lysine-producing strain Au111-2
AU Su, Lingming; Xu, Suowei; Fu, Yinghua; Wang, Xingzhen; Tang, Shanghua; Shao, Guoliang
CS Shanghai Inst. Ind. Microbiol., Shanghai, Peop. Rep. China
SO Gongye Weishengwu (1991), 21(6), 12-16
CODEN: GOWEEK; ISSN: 1001-6678
DT Journal
LA Chinese
AB ***Bacteria*** strain A111 was a good producer of lysine, but was ***urease*** ***deficient*** , and so the pH in the process of fermn.
could not be controlled with urea. After the mutation with MNNG and screening with urea as nitrogen source, an urease revertant strain Au111-2 was obtained. The lysine productivity and the conversion ratio to the glucose of the urease revertant Au111-2 increased by 25% and 15% than that of strain A111.
AB ***Bacteria*** strain A111 was a good producer of lysine, but was ***urease*** ***deficient*** , and so the pH in the process of fermn.
could not be controlled with urea. After the mutation with MNNG. . .
ST lysine fermn ***bacteria*** urease
IT ***Bacteria***
(lysine formation by, urease mutation effect on)
IT Fermentation
(lysine, with ***bacteria*** , urease mutation effect on)
IT 56-87-1, L-Lysine, biological studies
RL: FORM (Formation, nonpreparative)
(formation of, by ***bacteria*** , urease mutation effect on)
IT 9002-13-5, Urease
RL: BIOL (Biological study)
(of ***bacteria*** , lysine formation in relation to)

L11 ANSWER 20 OF 20 MEDLINE on STN
AN 2007476473 MEDLINE <<LOGINID::20080330>>
DN PubMed ID: 17519853

TI [Strategies for the development of new ***tuberculosis*** vaccines]. Strategie per lo sviluppo di nuovi vaccini antitubercolari.
AU Fattorini L
CS Dipartimento di Malattie Infettive, Parassitarie e Immunomediate, Istituto Superiore di Sanita, Roma, Italy.. lanfranco.fattorini@iss.it
SO Minerva medica, (2007 Apr) Vol. 98, No. 2, pp. 109-19. Ref: 47
Journal code: 0400732. ISSN: 0026-4806.
CY Italy
DT (ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LA Italian
FS Priority Journals
EM 200708
ED Entered STN: 16 Aug 2007
Last Updated on STN: 17 Aug 2007
Entered Medline: 16 Aug 2007
AB ***Tuberculosis*** remains a substantial global health problem causing 2 million deaths, and an estimated 8 to 10 million new infections a year. The efficacy of the ***Mycobacterium*** ***bovis*** Bacillus Calmette-Guerin (BCG), the only available antituberculosis vaccine, is variable (0-80%), especially in ***tuberculosis*** -endemic countries. Over the past decade there has been a resurgence of interest in the development of new ***tuberculosis*** vaccines and some of the most promising are now entering into early clinical trials, based on two different strategies. The first is to use whole ***mycobacteria*** to replace BCG (priming vaccines), either by developing a recombinant strain of BCG or an attenuated strain of ***Mycobacterium*** ***tuberculosis*** . To date, two recombinant strains of BCG, one overexpressing antigen 85B (rBCG-85B) and the other, a ***urease*** - ***deficient*** BCG mutant which expresses the listeriolysin O gene from Listeria monocytogenes (rBCG::DeltaureC-hly+), entered into clinical trials. The second approach is to develop subunit vaccines (recombinant proteins and viral vectors, and DNA vaccines) expressing immunodominant antigen/s from M. ***tuberculosis*** able to augmenting BCG protection (booster vaccines). At the moment, three major vaccines, namely a recombinant modified vaccinia virus Ankara expressing antigen 85A (MVA85A), a fusion protein of ESAT6 and 85B (Hybrid 1), and another fusion protein comprising the 32 and 39 Kda proteins (72f) entered into clinical trials.
TI [Strategies for the development of new ***tuberculosis*** vaccines]. Strategie per lo sviluppo di nuovi vaccini antitubercolari.
AB ***Tuberculosis*** remains a substantial global health problem causing 2 million deaths, and an estimated 8 to 10 million new infections a year. The efficacy of the ***Mycobacterium*** ***bovis*** Bacillus Calmette-Guerin (BCG), the only available antituberculosis vaccine, is variable (0-80%), especially in ***tuberculosis*** -endemic countries. Over the past decade there has been a resurgence of interest in the development of new ***tuberculosis*** vaccines and some of the most promising are now entering into early clinical trials, based on two different strategies. The first is to use whole ***mycobacteria*** to replace BCG (priming vaccines), either by developing a recombinant strain of BCG or an attenuated strain of ***Mycobacterium*** ***tuberculosis*** . To date, two recombinant strains of BCG, one overexpressing antigen 85B (rBCG-85B) and the other, a ***urease*** -

deficient BCG mutant which expresses the listeriolysin O gene from
Listeria monocytogenes (rBCG::DeltaureC-hly+), entered into clinical trials. The second approach is to develop subunit vaccines (recombinant proteins and viral vectors, and DNA vaccines) expressing immunodominant antigen/s from M. ***tuberculosis*** able to augmenting BCG protection (booster vaccines). At the moment, three major vaccines, namely a recombinant modified vaccinia virus Ankara. . .

CT Immunization, Secondary: MT, methods
****Mycobacterium bovis: IM, immunology***
****Mycobacterium tuberculosis: IM, immunology***
****Tuberculosis Vaccines: IM, immunology***
Vaccines, Synthetic: IM, immunology

CN 0 (***Tuberculosis*** Vaccines); 0 (Vaccines, Synthetic)